antas® 169-25

Structural Silicone Sealant

DESCRIPTION

antas® 169-25 is a high performance single component, neutral curing structural sealant silicone. It is specially designed for structural glazing in glass curtain wall and other façade applications where structural silicone is required. Antas 169-25 has a designed service life expectancy of 25 years for glass curtain wall application.

antas® 169-25 is cured by reacting with the moisture in air to form an permanent elastic seal. It has high performance structural bonding and excellent weather durability meeting and exceeding requirements for structural glazing silicone.

antas® 169-25 is easy to tool and can be applied at a wide range of temperature.

FEATURES

Fast and strong bond with glass, aluminium and most construction materials including timber, tile, concrete, gypsum board etc.

- Neutral curing, no staining or corrosion on metal, coated glass, concrete, nature stone.
- Excellent adhesion to most building materials.
- Excellent weathering performance with over 25 years' service life under general conditions.
- Excellent performance within a wide range of temperature. Service temperature at -50 ~ 150ºC under typical conditions.
- Compatibility with other neutral silicone sealants and other accessories used in structural glazing.

STANDARDS AND SPECIFICATIONS

- ASTM C1184 Structural silicone sealants
- ASTM C 920 Type S, Grade NS, Class 50, Use NT, G, A
- ETAG002 Guideline for European Technical Approval for Structural Sealant Glazing Systems
- GB 16776 Structural Silicone Sealants for Building

TYPICAL PROPERTIES

Test items	Test result	Test Method
Appearance	paste	
Flowability, mm	0	ASTM C 639
Extrudability, ml/min	250	ASTM C 1183
Density, g/ml	1.34	
Tack free time, min	60	ASTM C 679
Tensile strength at 100% Elongation (23°C), MPa	0.63	ASTM D 412
Tensile strength at break (23°C), MPa	2.34	ASTM D 412
Elongation at break, %	516	ASTM D 412
Tensile adhesion strength 21 days (23°C), MPa	1.28	ASTM C 1135

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Test items	Test result	Test Method
Tensile adhesion strength 21 days (90°C), MPa	0.83	ASTM C 1135
Tensile adhesion strength 21 days (-30°C), MPa	1.97	ASTM C 1135
Tensile adhesion strength 21 days (water immersed), MPa	0.93	ASTM C 1135
Tensile adhesion strength 21 days (UV radiation and water immersed), MPa	1.19	ASTM C 1135
Loss of mass, %	3	
Movement capacity, %	±50	ASTM C 719
Hardness, A	41	ASTM D 2240
Design tensile strength for dynamic load, MPa	σ_{des} = 0.17	ETAG002

APPLICATION

Prepare the substrate and keep it clean, dry and free from grease. Remove all dirt, oil, grease, detergents and loose material. The joint edges can be masked with tape to prevent contamination. Remove the tape carefully after tooling. Use suitable backing rod to fill the cavity of the joints as needed.

Cut nozzle to desired size at 45°angle and attach to the sealant cartridge. Insert the cartridge into a caulking gun. Pull the trigger of the caulking gun to extrude sealant through the nozzle.

For joint sealing, smooth the surface of the sealant filled joint within the tooling time and clean off excess sealant.

For bonding and installation of flooring or prefabricated objects, sliding the floor or other objects onto the adhesive sealant, tap into place.

CURING TIME

antas® 169-25 is cured by reacting with the moisture in the air and the tack-free time is approximate 45 minutes depending on ambient condition. It generally takes 21 days to be full cured.

It is recommended to secure the substrate prior to the applying of the sealant and avoid any movement during the curing process.

JOINT DESIGN AND COMPATIBILITY TESTS

The joint design of the structural sealant should be done by professional engineers. For structural sealing purpose, the shop design and the samples of substrates including accessory materials should be sent to us for tests and review prior to the commence of the projects.

Sealant adhesion should always be tested in advance. If required, a thin film of Antas 201 Primer can be applied on substrate by using a clean lint-free cloth and allowed to dry before sealant application. Please consult us for details on the primer and its application guide.

LIMITATIONS

antas® 169-25 should not be applied under the following conditions:

- On substrate that bleed oil, plasticiser or solvent etc.
- On materials such as impregnated wood; oil-based caulks; green or partially vulcanized rubber gaskets/ tapes; bituminous below-grade waterproofing or asphalt-impregnated fiberboard etc.
- In confined spaces.
- Substrate temperature over 45°C or below 5°C.
- On wet surface.
- On painted surface.
- Surface contact with food directly.
- Other unsuitable conditions determined by trial.

CLEAN UP

Excess sealant can be removed with mineral spirit and cleaning solvent before cured. Once cured, antas® 169-25 may only be removed

mechanically.

SAFETY

antas® 169-25 has low VOC. Avoid direct contact with eyes when operating. In case of accident, rinse opened eye under running water for several minutes.

During the curing process, keep good ventilation at the construction site. Avoid applying in confined space.

Read and follow material safety data sheet for safe handling or using.

PACKAGING

590ml sausages / 20 per carton

COLOUR

Black, white and grey. Other colours available on request.

TRANSPORTATION & STORAGE

antas® 169-25 is classified as non-dangerous goods for transportation.

The product should be stored in a dry and cool place between 5 to 27°C. The shelf life is 12 months from the date of manufacturing under normal storage conditions.

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